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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/660,440	09/10/2003	Tomohiro Fuse	14470.0003US01	7506
23552	7590	04/22/2004	EXAMINER	
MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903				OLSON, LARS A
ART UNIT		PAPER NUMBER		
		3617		

DATE MAILED: 04/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/660,440	FUSE, TOMOHIRO
	Examiner Lars A Olson	Art Unit 3617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on ____.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-20 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
 5) Claim(s) 9,10 and 12-15 is/are allowed.
 6) Claim(s) 1-3,6-8,11 and 16-20 is/are rejected.
 7) Claim(s) 4 and 5 is/are objected to.
 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 9/10/2003 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. ____.
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>01262004</u> .	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
2. Claims 6, 11 and 16-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claim 6 recites the limitation "the insertion nozzle" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.
4. Claim 11 recites the limitation "the insertion nozzle" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.
5. Claim 16 recites the limitation "said steering nozzle" in lines 9-10. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henmi (US 5,803,775) in view of Kobayashi (US 4,252,075).

Henmi discloses a personal watercraft, as shown in Figure 3, that is comprised of an engine, defined as Part #64, a jet propeller, defined as Part #50, a jet nozzle, defined as Part #52, an annular trim ring, defined as Part #106, that is mounted on a rear portion of said jet nozzle, as shown in Figure 8, with left and right support shafts, defined as Part #98, and a steering nozzle, defined as Part #60, that is mounted on aid trim ring with upper and lower support bolts, defined as Part #102, to allow said steering nozzle to swing left and right, where said steering nozzle is also mounted on said jet nozzle in order to allow said steering nozzle to be vertically swingable as well as able to swing left and right.

Henmi, as set forth above, discloses all of the features claimed except for the use of upper and lower support bolts for a steering nozzle mounted so that their heads are directed toward a jet nozzle.

Kobayashi discloses a personal watercraft, as shown in Figures 2a and 2b, with a steering nozzle, defined as Part #20, that is mounted to a jet nozzle, defined as Part #16, by means of upper and lower bolts, defined as Part #22, that are positioned so that their heads are directed toward said jet nozzle, as shown in Figure 2a.

The use of upper and lower bolts of a specific length for mounting a steering nozzle to a jet nozzle would be considered by one of ordinary skill in the art to be a design choice based upon the relative thicknesses of said steering nozzle and said jet nozzle, the required clearance of the ends of said bolts from said steering nozzle, and the required length for attaching fastening nuts to secure said bolts in place.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to utilize a steering nozzle that is mounted to a jet nozzle by means of bolts with their heads positioned towards said jet nozzle, as taught by Kobayashi, in combination with the personal watercraft as disclosed by Henmi for the purpose of providing a more secure means for mounting a steering nozzle to a jet nozzle of a personal watercraft.

8. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henmi in view of Kobayashi, and further in view of Horwitz (US 3,776,173).

Henmi in combination with the teachings of Kobayashi shows all of the features claimed except for the use of an operating cable for swinging a steering nozzle vertically, a connection portion of said operating cable that detachably connects to an upper support shaft, and a joint means for adjusting the length of said operating cable.

Horwitz discloses a watercraft with a water jet propulsion system, as shown in Figures 1-5, said propulsion system having a jet nozzle, defined as Part #19, a steering nozzle, defined as Part #25, an operating cable, defined as Part #31, for swinging said steering nozzle vertically, a connection portion of said operating cable, defined as Part #36, for detachably connecting said operating cable to an upper support shaft, as shown in Figure 4, and a joint means, as shown in Figures 3 and 4, for adjusting the length of said operating cable.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to utilize an operating cable with a connection portion and an adjustable joint means, as taught by Horwitz, in combination with the personal

watercraft as disclosed by Henmi and the teachings of Kobayashi for the purpose of providing a vertical control means for a steering nozzle with a means to facilitate the connection and adjustment of an operating cable with said steering nozzle.

9. Claims 16, 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henmi in view of Horwitz.

Henmi, as set forth above, discloses all of the features claimed except for the use of an operating cable for swinging a steering nozzle vertically, a connection portion of said operating cable that detachably connects to an upper support shaft, and a joint means for adjusting the length of said operating cable.

Horwitz, as previously cited, discloses a watercraft with a water jet propulsion system having a jet nozzle, defined as Part #19, a steering nozzle, defined as Part #25, an operating cable, defined as Part #31, for swinging said steering nozzle vertically, a connection portion of said operating cable, defined as Part #36, for detachably connecting said operating cable to an upper support shaft, as shown in Figure4, and a joint means, as shown in Figures 3 and 4, for adjusting the length of said operating cable.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to utilize an operating cable with a connection portion and an adjustable joint means, as taught by Horwitz, in combination with the personal watercraft as disclosed by Henmi for the purpose of providing a vertical control means for a steering nozzle with a means to facilitate the connection and adjustment of an operating cable with said steering nozzle.

10. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Henmi in view of Horwitz, and further in view of Kobayashi.

Henmi in combination with the teachings of Horwitz shows all of the features claimed except for the use of upper and lower support bolts for a steering nozzle mounted so that their heads are directed toward a jet nozzle.

Kobayashi, as previously cited, discloses a personal watercraft with a steering nozzle, defined as Part #20, that is mounted to a jet nozzle, defined as Part #16, by means of upper and lower bolts, defined as Part #22, that are positioned so that their heads are directed toward said jet nozzle, as shown in Figure 2a.

The use of upper and lower bolts of a specific length for mounting a steering nozzle to a jet nozzle would be considered by one of ordinary skill in the art to be a design choice based upon the relative thicknesses of said steering nozzle and said jet nozzle, the required clearance of the ends of said bolts from said steering nozzle, and the required length for attaching fastening nuts to secure said bolts in place.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to utilize a steering nozzle that is mounted to a jet nozzle by means of bolts with their heads positioned towards said jet nozzle, as taught by Kobayashi, in combination with the personal watercraft as disclosed by Henmi and the teachings of Horwitz for the purpose of providing a more secure means for mounting a steering nozzle to a jet nozzle of a personal watercraft.

11. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Henmi in view of Horwitz, and further in view of Jacobson (US 3,658,026).

Henmi in combination with the teachings of Horwitz shows all of the features claimed except for the use of a nut for retaining an operating cable on an upper support shaft of a steering nozzle.

Jacobson discloses a watercraft with a steering assembly, as shown in Figures 1-5, that includes a steering nozzle, defined as Part #28, an upper support shaft, defined as Part #24, with a threaded end, defined as Part #32, an operating cable, defined as Part #44, with an connecting portion, defined as Part #34, and a nut, defined as Part #36, for retaining said connecting portion of said operating cable on said upper support shaft.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to utilize a nut for retaining a connecting portion of an operating cable on an upper support shaft of a steering nozzle, as taught by Jacobson, in combination with the personal watercraft as disclosed by Henmi and the teachings of Horwitz for the purpose of providing a more secure connection for an operating cable on a support shaft of a steering nozzle of a watercraft.

Allowable Subject Matter

12. Claims 9, 10 and 12-15 are allowed.
13. Claims 4 and 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

14. Claims 6 and 11 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Matsumoto (US 5,551,898) discloses a discharge nozzle arrangement for a water jet propulsion unit. Chronic (US 3,957,207) discloses a steering nozzle mounting arrangement for a water jet propulsion system.

16. Any inquiry concerning this communication from the examiner should be directed to Exr. Lars Olson whose telephone number is (703) 308-9807.

lo

April 20, 2004

LARS A. OLSON
PATENT EXAMINER

Lars Olson
4/20/04